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July 5, 2006

The Honorable Charles L.A. Terreni
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

RE: Application of Tega Cay Water Service, Inc. for adjustment of rates and charges and modifications to certain terms and conditions for the provision of water and sewer service; Docket No. 2006-97-WS

Dear Mr. Terreni:

Enclosed for filing are the original and twenty-five (25) copies of each of the following documents in the above-referenced docket:

1. Direct Testimony of Bruce T. Haas
2. Direct Testimony and supporting exhibits of Lena Sunardio
3. Direct Testimony and supporting exhibits of Pauline M. Ahern
4. Direct Testimony and supporting exhibits of B.R. Skelton, Ph.D.

I would appreciate your acknowledging receipt of these documents by date-stamping the extra copies that are enclosed and returning them to me via our courier delivering same. By copy of this letter, I am serving all parties of record and enclose my certificate of service to that effect.

RECEIVED DATE: *OK*
CLERK: *OK*

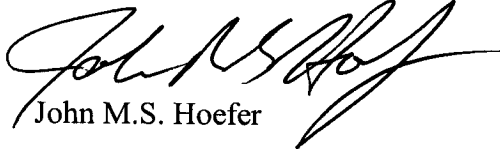
(Continued . . .)

The Honorable Charles L.A. Terreni
July 5, 2006
Page 2

If you have any questions, or need additional information, please do not hesitate to contact us.

Sincerely,

WILLOUGHBY & HOEFER, P.A.



John M.S. Hoefer

JMSH/twb

Enclosures

cc: Wendy B. Cartledge, Esquire
Jeffrey M. Nelson, Esquire

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2006-97-WS

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COLUMBIA, SC

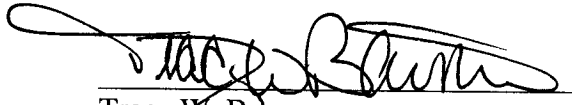
IN RE:

Application of Tega Cay Water
Service, Inc. for adjustment of
rates and charges and modifications to
certain terms and conditions for the
provision of water and sewer service.

CERTIFICATE OF SERVICE

This is to certify that I have caused to be served this day one (1) copy of the **Direct Testimony of Bruce T. Haas, Direct Testimony and supporting exhibits of Lena Sunardio, Direct Testimony and supporting exhibits of Pauline M. Ahern, Direct Testimony and supporting exhibits of B.R. Skelton, Ph.D.** via hand delivery addressed as follows:

Wendy B. Cartledge, Esquire
Jeffrey M. Nelson, Esquire
Office of Regulatory Staff
1441 Main Street, 3rd Floor
Columbia, South Carolina 29201


Tracy W. Barnes

Columbia, South Carolina
This 5th day of July, 2006.

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2006-97-WS

IN RE:

Application of Tega Cay Water
Service, Inc. for adjustment of
rates and charges and modifications to
certain terms and conditions for the
provision of water and sewer service.

DIRECT TESTIMONY
OF
B.R. SKELTON, Ph.D.

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is B. R. Skelton and my business address is 2962 Walhalla Highway,
Six Mile, South Carolina 29682. I am Professor *Emeritus* of Economics at Clemson
University and am engaged in a variety of private business endeavors, including real
estate brokerage and residential construction. I also act as a mediator and arbitrator.
Since 1974, I have mediated 190+ disputes and written decisions in over 1000 arbitration
cases, mostly union-management grievances. I have also arbitrated deferrals from the
courts and the NLRB.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
PROFESSIONAL EXPERIENCE.**

A. I received my B.S. degree in Arts & Sciences (History & Economics) from
Clemson University in 1956. In 1958, I received a Masters of Science degree in
Agricultural Economics from Clemson University. I received my Ph.D. in Economics
from Duke University in 1964.

1 From 1959 to 1987, I was a professor of Economics at Clemson except for 1961-
2 63 when I was in graduate school at Duke University. In addition to teaching standard
3 economic theory, my academic background includes writing, lecturing and research in
4 the areas of labor economics, economic development and arbitration. While at Clemson,
5 I was a member of the Southern Economics Association and American Economic
6 Association. I was also a member of the Arbitration Panel of the Federal Mediation and
7 Conciliation Service and the American Arbitration Association. I retired from Clemson
8 in 1987.

9 **Q. PLEASE DESCRIBE YOUR WORK IN THE REAL ESTATE FIELD.**

10 **A.** Over time I have developed subdivisions, commercial property, apartments and
11 bought and sold real estate of all types.

12 **Q. DO YOU PROVIDE ANY CONSULTING SERVICES?**

13 **A.** I have served as a consultant to various individuals and companies, mostly
14 wrongful death and injury, divorce, product liability and valuation of business losses. I
15 was President of Economic Research and Consulting Associates prior to 1980, the
16 business that provided this analysis. I have testified before the PSC in one case involving
17 a water company in Oconee County.

18 **Q. DO YOU HOLD ANY OTHER PROFESSIONAL DESIGNATIONS?**

19 **A.** Yes. I am a mediator and arbitrator and am licensed by the State of South
20 Carolina as both a real estate broker and residential contractor. I am also an elected
21 member of the National Academy of Arbitrators and have been a member since 1981.

1 **Q. DR. SKELTON, PLEASE DISCUSS THE BASIS FOR YOUR OPINIONS IN THIS**
2 **CASE.**

3 **A.** I am qualified to offer my opinions in this case based on my studies, research,
4 teaching, writing and consulting in the field of economics and on my experience as a real
5 estate investor and broker and as a business person.

6 My opinions are based on my analyses of the relevant materials I have reviewed
7 to date and my fifty years of teaching, writing, researching, consulting, and lecturing in
8 the field of economics. I may supplement, refine, or revise my analyses as appropriate
9 based on additional testimony, documents, or other materials that may become available
10 in this case.

11 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

12 **A.** The purpose of my testimony is to express opinions regarding the method of
13 ratemaking that should be employed with respect to this application.

14 **Q. WHAT KEY DOCUMENTS AND OTHER MATERIALS DID YOU CONSIDER**
15 **IN REACHING YOUR OPINIONS?**

16 **A.** The key materials used by me in my analysis are as follows:

- 17 • Commission Order Number 1991-191 in Docket Number 1996-137-W/S.
18 • Commission Order Number 94-484 in Docket Number 93-738-W/S.
19 • Various Regulatory Accounting Literature.
20 • Prepared Direct Testimony of Pauline M. Ahern, Vice President of AUS
21 Consultants – Utility Services, filed on behalf of TCWS.

- Prepared Direct Testimony of Lena Sunardio, Senior Regulatory Accountant at Utilities, Inc., filed on behalf of TCWS.

Q. DR. SKELTON, WOULD YOU PLEASE DESCRIBE THE RATEMAKING APPROACH USED TO ESTABLISH THE COMPANY'S CURRENT RATES?

A. Yes. The current rates were set by the Commission using a variation of the operating ratio approach. In its Order Number 1999-191, issued March 16, 1999, in Docket Number 1996-137-W/S, the Commission found that Tega Cay was entitled to earn a "reasonable operating margin." In previous orders, the Commission has explained that "operating ratio is the percentage obtained by dividing total operating expenses by operating revenues" and that operating margin is the "obverse side of this calculation ... [and] is determined by dividing the net operating income for return by the total operating revenues of the utility." I am referring to Commission Order Number 94-484, issued May 31, 1994 in Docket Number 93-738-W/S, at page 29.

Q. WHY DO YOU REFER TO THIS METHOD AS A VARIATION OF THE OPERATING RATIO APPROACH?

A. First, as the Commission itself noted in Order Number 94-484, its operating margin calculation is the obverse calculation of operating ratio. Secondly, the regulatory, finance, and accounting literature relating to public utilities does not recognize operating margin as a ratemaking approach, but instead discusses operating ratio. Third, as described in the literature, the operating ratio approach is defined as a process in which a utility's revenue requirement is determined by dividing operating expenses by a target

operating ratio that the regulatory body deems necessary to permit the utility to generate revenues adequate to cover operating expenses, depreciation, taxes and capital costs.

Q. WOULD YOU PLEASE IDENTIFY THE LITERATURE YOU ARE REFERRING TO?

A. There are a number of works which refer to operating ratio as a ratemaking approach. One such publication is *Accounting for Public Utilities* by Robert L. Hahne and Gregory E. Aliff, which describes operating ratio methodology as being particularly appropriate for application in the transportation industry because most of the equipment employed in that industry is leased. In discussing application of the operating ratio approach to water and wastewater utilities, at page 3-5 of this publication, the authors state:

Other examples of companies not having the attributes that are conducive to rate base/rate of return measurements are found in the water/wastewater industry. Although water/wastewater companies are capital intensive, many situations exist in which customers provide substantial portions of the capital funds in the form of contributions in aid of construction. These customer-provided funds are normally deducted from the rate base and often result in nominal (or even negative) rate base amounts. If the capital that investors supply is relatively insignificant or even nonexistent, that capital does not provide an adequate foundation for using the rate base/rate of return measure of service costs, and an alternative measure, such as the operating ratio, is applied.

A copy of the portions of this publication to which I refer are attached in Exhibit A to my testimony. Another such publication is the course materials prepared by Dr. Janice A. Beecher, then Director of Regulatory Studies for the Center for Urban Policy and the

1 Environment at Indiana University, for the NARUC Water Committee Eastern Utility
2 Rate School conducted in October of 1997. Dr. Beecher's materials recognize that the
3 operating ratio method is a "[m]odification of [t]raditional [r]egulation" that "is used for
4 smaller systems with little or no rate base". A copy of these course materials is also
5 included in Exhibit A to my testimony. A third such publication is the Deloitte & Touche
6 *Public Utilities Manual, A Service for Public Utilities*, which simply identifies the
7 operating ratio methodology as one of three ratemaking methods traditionally employed,
8 with cost of service and debt service being the other two. Deloitte & Touche notes that
9 the operating ratio methodology is rarely used except in the transportation industry and
10 do not discuss it further in their publication. A copy of the portion of this publication
11 referencing operating ratio is also included in Exhibit A to my testimony.

12
13 **Q. WHAT CONCLUSIONS DO YOU DRAW FROM THE LITERATURE?**

14 **A.** It is clear from the literature that the rate of return methodology is the ratemaking
15 approach traditionally employed in the regulation of public utility rates and that the
16 operating ratio methodology is rarely used. Operating margin is not recognized as an
17 alternative. Moreover, in the case of water and sewer utilities, operating ratio is only
18 appropriate for use when there is little or no investor supplied capital. Stated another
19 way, where a water or sewer utility has no significant rate base, the rate of return
20 approach is not appropriate.

1 **Q. WHAT DO YOU DRAW FROM YOUR UNDERSTANDING OF RATE MAKING**
2 **IN OTHER STATES?**

3 **A.** Based upon Mrs. Sunardio's testimony, the only recognized alternative method to
4 rate of return on rate base regulation for the regulated sister companies of TCWS is
5 operating ratio which is employed in only one state where a Utilities, Inc. subsidiary
6 operates. It is my understanding that North Carolina employs operating ratio only where
7 it generates **more** revenue than does the rate of return on rate base approach. Such a
8 method in my opinion is for smaller companies that have little or no rate base, are
9 incapable of having a well-defined capital structure, have a cost of capital which cannot
10 be easily determined and which will benefit on the revenue side when the alternative is
11 employed.

12
13 **Q. DOES THE COMPANY FIT THE PROFILE OF A WATER OR WASTEWATER**
14 **UTILITY FOR WHICH THE OPERATING RATIO/OPERATING MARGIN IS**
15 **APPROPRIATE?**

16 **A.** Definitely not. The Company has over 3,500 water and sewer customers. This is
17 hardly a small customer base. The Company has a rate base in excess of \$2,000,000. By
18 most any standard, \$2,000,000 is not an insignificant amount of investor capital and is
19 certainly significant in comparison to other water and sewer utilities the Commission
20 regulates. Such a substantial investment warrants a rate of return methodology instead of
21 an operating margin methodology. This is supported by a 1998 decision by the Supreme
22 Court of South Carolina. The Supreme Court opined in the Heater of Seabrook rate case
23 that

1 “...it is less appropriate for utilities that have large rate bases and need to
2 earn a rate of return sufficient to obtain the necessary equity and debt
3 capital that a larger utility needs for sound operation.”
4

5 I believe that the Supreme Court’s analysis in the Heater of Seabrook case correctly
6 applies to this proceeding. Additionally the Company’s capital structure is well defined
7 as can be gleaned from the testimony of Company witness Ahern. Use of the parent
8 Company’s capital structure is in keeping with generally accepted cost of capital analyses
9 among regulatory bodies and has been approved by this Commission in other cases. And,
10 also as Ms. Ahern’s testimony reflects, the cost of capital for TCWS is easily capable of
11 determination.
12

13 **Q. IS RATE OF RETURN ON RATE BASE TREATMENT APPROPRIATE FOR**
14 **THE COMPANY?**

15 **A.** Absolutely. The Company has a large rate base and needs to earn a rate of return
16 that is sufficient to obtain the necessary equity and debt capital that a larger utility needs
17 for sound operation. Regulating a utility based upon its return on rate base is more
18 appropriate than using operating margin. The rate base method reflects a company’s
19 investment in its operations and allows it to recover its costs and to earn a fair, just,
20 reasonable, and sufficient return on its investments devoted to public utility service.
21

22 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

23 **A.** Yes, it does.

ACCOUNTING FOR PUBLIC UTILITIES

ROBERT L. HAHNE
GREGORY E. ALIFF
DELOITTE & TOUCHE LLP

Contributing Authors: The following were the original contributing authors of *Accounting for Public Utilities*. While much of what these individuals originally wrote has been removed or replaced through the annual update process, we wish to continue to recognize their contributions in the creation of this book.

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1999

Current Through:
RELEASE NO. 16, NOVEMBER 1999

MATTHEW  BENDER

§ 3.01[1]

ACCOUNTING FOR PUBLIC UTILITIES

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balancing of these two positions is difficult even in stable economic periods. The economic problems of the 1970s, stemming largely from inflation and steep increases in energy costs, resulted in considerable attention being focused on the ratemaking process and have led all interested parties to scrutinize ratemaking methods, their significant components, and their resulting effect on utility prices.

Part II of this book examines the subject of ratemaking. Chapter 3 briefly describes the ratemaking environment and surveys the most important ratemaking styles. Chapter 4 addresses the major factors considered in determining the rate base (the investor-supplied plant facilities and other assets that provide utility services), including the costing method to be used, the time period to be considered, and the components to be included. Chapter 5 focuses specifically on the working capital component of the rate base, with special attention given to cash working capital or those funds needed to cover the lag between required service expenditures and collections received for that service. Chapter 6 deals with depreciation and analyzes the methods used for calculating periodic recovery of capital expenditures. Chapter 7 discusses the selection of the test period used in estimating utility cost of service and the method and timing by which test period data are accumulated.

Chapter 8 describes the phenomenon of attrition, which occurs when revenues consistently fail to keep pace with expenses and a pattern of declining earnings emerges. The causes of, and potential remedies for, this situation are discussed. Chapter 9 covers the principles used in determining what constitutes a fair rate of return as well as the various methods employed in that determination. Chapter 10 addresses the actual pricing of utility services, including rate design with its attendant procedures.

A fundamental aspect of ratemaking considerations is utility taxation, particularly federal income taxes. The complexities of this topic are dealt with in Chapter 17.

§ 3.01 Overview of Ratemaking Approaches

[1] In General

Historically, the rate base/rate of return approach has been the most prominent style of ratemaking in determining revenue requirements. As is developed more fully in § 3.02 below, this approach

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STYLES OF RATEMAKING

§ 3.01[1]

measures investment in plant plus related support items, such as inventories and cash working capital requirements. Other approaches to measuring the revenue levels required to cover service costs, however, have been employed by regulators on occasion. Among the various approaches that have been used are the following:

- (1) *Rate base/rate of return approach*—Under the rate base/rate of return approach, revenue requirements equal the total of:
 - (a) operation and maintenance expenses;
 - (b) depreciation;
 - (c) taxes; and
 - (d) cost of capital invested in the rate base (i.e., the amount produced by multiplying the rate base by an appropriate rate of return).

The rate base/rate of return approach is widely used in rate proceedings involving investor-owned electric, telephone, and natural gas transmission and distribution companies. These companies are generally capital intensive, and the annual cost of debt interest and equity earnings requirements is a major component of the total cost of providing service.

- (2) *Debt service coverage approach*—Under this approach, revenue requirements equal the total of:
 - (a) operation and maintenance expenses;
 - (b) taxes; and
 - (c) debt service requirements (i.e., debt principal and interest payments for the test period plus a specified "coverage" allowance in excess of the actual debt service payments required).

This type of ratemaking approach is most often used in highly leveraged systems (i.e., financed primarily, if not entirely, by debt capital) in which common equity capital is not sufficient to function as primary risk capital in providing an adequate buffer against earnings volatility.

- (3) *Operating ratio approach*—Under the operating ratio approach, revenue requirements are determined by dividing operating expenses by a target operating ratio deemed necessary

§ 3.01[2]

ACCOUNTING FOR PUBLIC UTILITIES

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to produce revenues adequate to cover operating expenses plus depreciation, taxes, and capital costs.

This measure is used primarily in rate proceedings of transportation companies and, in some instances, in establishing water or wastewater company rate levels. It has been used as a substitute for the rate base/rate of return approach in situations in which investor-provided capital and the related capital costs have not been a significant factor in the total cost of providing services.

[2] Considerations Affecting the Ratemaking Approach

The particular ratemaking approach used must fit into a framework of conceptual, practical, and legal considerations.

[a] Conceptual

Conceptually, any of these approaches may be acceptable in the determination of revenue requirements for a regulated utility. The utility incurs costs in providing customer services and is entitled to a reasonable opportunity to recover those costs (presumably incurred at reasonable levels for prudent purposes). Accordingly, the ratemaking process, by whatever means employed, should result in producing rates that, when applied to sales or to services rendered, generate revenues equal to the cost of service incurred. This is fundamental to traditional ratemaking philosophies and procedures, and the structuring of the cost components in a particular format (i.e., the style of ratemaking) should facilitate this objective.

[b] Practical

Practical considerations typically have more effect on the rate-making style or format than conceptual considerations. Most often, the physical, economic, and financial characteristics of the regulated entity dictate the approach used. Capital intensive companies, such as electric, gas, and telephone utilities, require large fixed investments in plant facilities and are generally financed with substantial amounts of debt and equity capital. In these instances, the rate base has a significant role in measuring service costs. Concurrently, the capital markets provide a ready source of data for assessing the costs of debt and equity capital supporting the rate base. These conditions

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STYLES OF RATEMAKING

§ 3.01[2]

are ideally suited for application of the rate base/rate or return measure.

Some regulated companies do not have the attributes that are suited for rate base/rate of return applications. Transportation companies, for example, generally are not capital intensive because so many of them lease a large portion of the operating facilities. As a result, operating costs dominate the cost of service, and capital investment (and the related capital cost requirements) are much less significant. In these situations, an alternative measure, such as the operating ratio approach, is more useful in establishing revenue levels required to offset the costs of service.

Other examples of companies not having the attributes that are conducive to rate base/rate of return measurements are found in the water/wastewater industry. Although water/wastewater companies are capital intensive, many situations exist in which customers provide substantial portions of the capital funds in the form of contributions in aid of construction. These customer-provided funds are normally deducted from the rate base and often result in nominal (or even negative) rate base amounts. If the capital that *investors* supply is relatively insignificant or even nonexistent, that capital does not provide an adequate foundation for using the rate base/rate of return measure of service costs, and an alternative measure, such as the operating ratio, is applied.

In addition, a utility may be involved in nonregulated or nonjurisdictional operations or in a variety of classes or types of service. These conditions require practical considerations in choosing the ratemaking approach to cost measurement. An example may be given as follows:

Regulatory and Ratemaking Alternatives



Janice A. Beecher
Indiana University
Fall 1997

Topics

- Alternatives to traditional economic regulation (ratebase/rate-of-return)
- Alternatives to traditional rate design (cost allocation)
- Regulatory reform often involves both
- Rate design choices may affect revenues and earnings

Traditional Regulation

Regulatory review and approval of:

- Revenue requirements
- Ratebase (value)
- Rate of return (ROE and ROR)
- Rate design (cost allocation)

Advantages of the RB/ROR

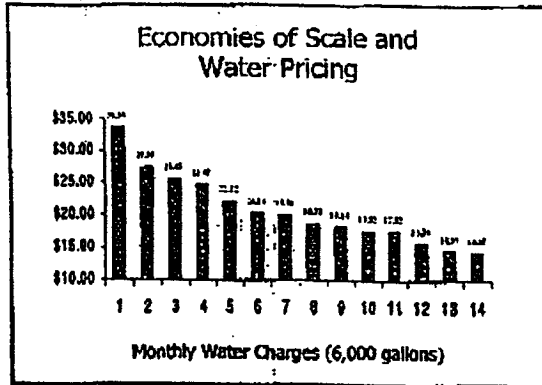
- A balancing of *competing interests* in the *public interest*
- For capital-intensive industries, regulation protects both ratepayers and shareholders
- Reasonable and institutionally valid
- Well-known and familiar (100+ years)
- Produces relatively stable results

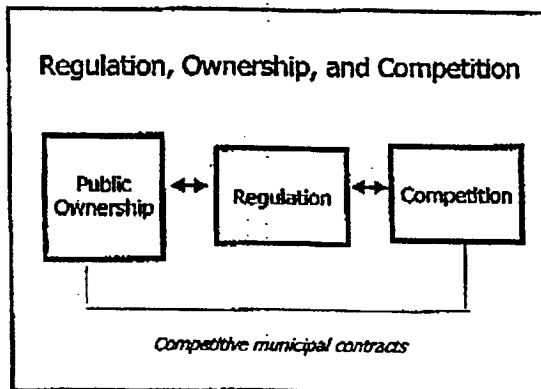
Disadvantages of RB/ROR

- Incentives for overinvestment in capital (ratebase)
- Incentive to cut costs only between rate adjustments (expenses)
- Inadequate incentives for innovation
- Inadequate consideration of social or environmental costs and benefits
- Inflexible, particularly with regard to responsiveness to market changes

Special Issues for Water

- Rising-cost industry
- Substantial infrastructure needs
(20 years = \$138 billion)
- Capital intensity and economies of scale
- Monopolistic character
- Industry structure (size, ownership)
- Public health and safety issues
- Environmental and conservation issues





- ### Modifications of Traditional Regulation
- Pass-throughs and cost-adjustment mechanisms (water, energy, taxes)
 - Special-purpose surcharges
 - Operating ratio
 - Cost indexing
 - Preapproval for environmental compliance
 - Alternative dispute resolution

Revenue Requirements Formula

$$RR = r(RB-d) + O\&M + D + T$$

Where:

- RR = revenue requirement
- RB - d = ratebase less depreciation
- O&M = operation and maintenance expenses
- D = depreciation expenses
- T = taxes

Operating Ratio

- Substitutes O&M for RB:

$$RR = r(O\&M) + O\&M + T$$

- Used for smaller systems with little or no rate base

Alternative Methods of Regulation

- Rate Indexing
- Incentive regulation (price caps)
- Municipal contracts

Rate Indexing

- Uses changes in consumer prices (CPI) or other metrics to adjust prices
- Simplifies ratemaking and reduces ratemaking costs (smaller systems)
- Can be used in conjunction with incentive regulation (larger systems)

Simple Rate Indexing

- Easy to understand, implement
- Rate increases tied to inflation (CPI)
- Example

	Inflation	Increase	\$1,000 gal.
Base year	—	—	.830
Inflation	.03	.249	.849

Incentive Regulation

- Initial price-cap process similar to RB/ROR
- Provides utilities with flexibility and reduces regulatory process
- Provides incentives for performance
- May provide a disincentive for needed expenditures (O&M)
- Criticized for allowing excessive earnings

Types of Incentive Regulation

- Price caps (British model)
- Cost indexing
- Incentive rates of return
- Construction-cost incentives (targets)
- Profit-sharing between ratepayers and shareholders
- Combinations (such as price caps and indexing)

British Price-Cap Model

$$PC = \text{Price level} \pm RPI \pm K$$

where K is a composite of :

- X = expected efficiency in the future
- Q = expenditure on quality enhancements
- Po = efficiency gains delivered*
- S = enhanced service levels expenditure*
- V = supply/demand balance expenditure*

* = new element

Municipal Contracts

- French model (also uses indexing)
- Public ownership and competitive contracts generally displace independent economic regulation
- Considerable use in wastewater industry, gaining popularity in water
- Competitively bid but very long term
- Concern about long-term commitment and investment

Alternative Methods of Rate Design

- Marginal-cost pricing
- Single-tariff pricing
- Negotiated rates
- Value-of-service pricing

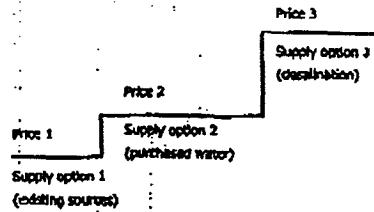
Rate Design Issues

- Science or art?
 - Allocation by customer class, space, time
 - Fixed v. variable charges
- As costs rise, cost allocation becomes more difficult and controversial
- Policy tradeoffs are intensifying
- Role of customer understanding and support
- Increasing experimentation in rate design
- Institutional legitimacy (regulators, courts)

Marginal-Cost Pricing

- Embedded v. marginal or incremental cost
- Promotes efficiency and conservation
- Economic theory v. real world implementation
- Revenue instability when used in determining revenue requirements
- Rate design applications include seasonal and block pricing

Marginal-Cost Pricing Example

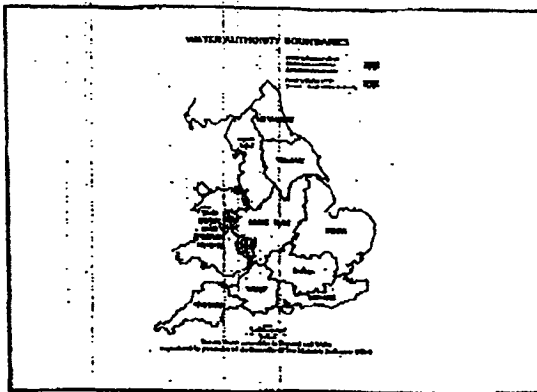


Single-Tariff Pricing

- Unique issue for water (utility v. system)
- Spatial differences in cost-of-service
- Costing (economies of scale) v. pricing
- Stand-alone v. district management
- Extends cost averaging and simplifies
- Corporate identity and competitive issues
- Trade-offs among policy objectives
- Role in restructuring (acquisitions)
- Commission policy (majority approve)
- Used In Great Britain (when metered)

Single-Tariff Pricing Example

System A (smaller)	
Stand-alone price	\$3.00/1,000 gallons
District price	\$2.80/1,000 gallons
Single-tariff price	\$2.75/1,000 gallons
System B (larger)	
Stand-alone price	\$2.80/1,000 gallons
District price	\$2.70/1,000 gallons
Single-tariff price	\$2.75/1,000 gallons



Negotiated Rates

- Avoided cost to the *buyer* can be the ceiling
- Marginal cost to the *seller* can be the floor
- Potential applications
 - Wholesale customers
 - Large-volume users
 - Competitive applications
 - Alternative dispute resolution

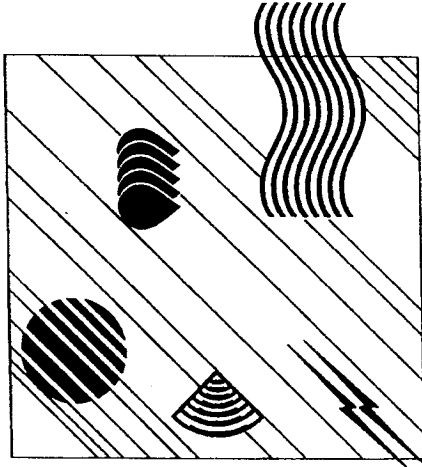
Value-of-Service Pricing

- Cost-of-service v. value-of-service
- Willingness-to-pay
- Customer preferences
- Equity or fairness issues
- Not widely practiced
- May become more important in competitive environments



Public Utilities Manual

A Service for Public Utilities



Public Utilities Manual

A Service for Public Utilities

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aspects of the ratemaking process: (1) the investment on which utilities are permitted to derive earnings and (2) the compensation or return to be allowed the investors on their investment. The normal rate formula for determining overall return is a simple one and is developed in some detail in Chapter 2.

Some recent court cases have dealt with regulatory jurisdictional issues. One case addressed the issue of whether local regulators are preempted from disallowing costs of a multistate project where the costs were allocated to separate jurisdictions by the FERC; in the particular case, the courts determined that the local regulator was so preempted. In another case, the courts ruled that the FERC could not impose a market price limitation on charges for fuel supplied by an affiliate where the affiliate charges were based on costs, as required by the SEC under the Holding Company Act.

II. Ratemaking Concepts

Ratemaking Methodologies

The basic objective of utility ratemaking is to determine the total amount of revenues a company must generate from its operations in order to achieve its own objectives and yet, at the same time, meet the needs and objectives of its customers.

Three methods of ratemaking have traditionally been used to achieve this objective: the cost-of-service, the debt-service, and the operating-ratio methods. While each permits the recovery of operating expenses and taxes, they differ in the techniques by which they measure the utility's revenue needs beyond these elements (i.e., their required return on and of capital).

The cost-of-service method is by far the most widely used. The debt-service method is most common in the regulation of cooperatives or government entities that are financed primarily with debt securities. The operating-ratio method is rarely used except in the transportation industry, and will not be further discussed here.

Cost-of-Service Method. This method equates "revenue requirements" or "cost of service" with the total of: operating expenses, depreciation, taxes, and a rate-of-return allowance on the utility's investment in rate base.

The total recorded or estimated amounts for operating expenses, depreciation, and taxes for the period under review, or test period, are deducted from revenues generated during the test period to determine net operating income realizable at current rates. This represents the amount available for return.

The utility's investment in facilities and other assets used in supplying utility service (rate base) is also determined. The required rate of return is determined by analyzing the components of the capital structure to produce the composite rate of return required to adequately meet the utility's capital requirements. Rate base multiplied by this composite rate of return results in the required return, or net operating income.

By comparing the required return with the net operating income realizable at current rates, the net-operating-income surplus or deficiency can be determined. This amount, adjusted for income tax and other factors, is then converted to a gross revenue surplus or deficiency in order to determine the

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2006-97-WS

IN RE:

Application of Tega Cay Water
Service, Inc. for adjustment of
rates and charges and modifications to
certain terms and conditions for the
provision of water and sewer service.

DIRECT TESTIMONY
OF
LENA SUNARDIO

1 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS**
2 **FOR THE RECORD.**

3 **A.** My name is Lena Sunardio. I am employed as a Senior Regulatory Accountant at
4 Utilities, Inc., 2335 Sanders Road, Northbrook, Illinois 60062.

5
6 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL BACKGROUND?**

7 **A.** I have been employed by Utilities, Inc. since January of 2006. Since that time I
8 have been involved in several phases of rate-making in many regulatory jurisdictions. I
9 graduated from University of Illinois at Chicago in 2000, and am a Certified Public
10 Accountant. I had four years of public accounting/auditing experience prior to joining
11 Utilities, Inc. I am a member of the Illinois CPA Society. I have successfully completed
12 the utility regulation seminar sponsored by NARUC.

13

14

1 **Q. PLEASE EXPLAIN YOUR JOB RESPONSIBILITIES AT UTILITIES, INC.**

2 **A.** My responsibilities include financial analysis of individual subsidiaries of
3 Utilities, Inc., preparation of rate applications, facilitation of regulatory audits, and the
4 submission of testimony and exhibits to support rate applications.

6 **Q. PLEASE DESCRIBE TEGA CAY WATER SERVICE, INC.**

7 **A.** Tega Cay Water Service, Inc. (“TCWS” or the “Company”) is a wholly owned
8 subsidiary of Utilities, Inc. (“UI”). TCWS was incorporated on August 12, 1991 for the
9 purpose of owning and operating water and wastewater utility systems. Since that time,
10 TCWS has grown to serve approximately 1,800 water and 1,700 wastewater customers.
11 These customers are located in York County.

12 TCWS maintains an operations and customer service office in West Columbia,
13 SC. Customer payments, meter readings and service orders are processed from this
14 office. Administrative functions such as regulatory services, management, accounting,
15 human resources, and data processing are performed from the Utilities, Inc., office in
16 Northbrook, Illinois.

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 **A.** The purpose of my testimony is to sponsor the Application of TCWS
20 (“Application”) for an increase in its rates for water and sewer services provided to its
21 service area in South Carolina, which was filed with the Commission on April 3, 2006.

1 **Q. WHY IS TCWS REQUESTING RATE RELIEF AT THIS TIME?**

2 **A.** It has been over seven years since the Commission last authorized TCWS to
3 increase its water and sewer rates. For the test year ended September 30, 2005, TCWS
4 earned a 2.00% return on its rate base. This return is less than one-fourth of the rate of
5 return on rate base resulting from the rates approved in the Company's last rate case. The
6 Company's current return on rate base is also well below its cost of capital which, as the
7 Commission will hear from the Company's witness Mrs. Ahern, is 8.47% - 8.70%. In
8 addition, as time passes, the need for rate relief will increase. Without satisfactory rate
9 relief, TCWS's ability to continue to provide safe, reliable and efficient water and sewer
10 utility services to its customers will be placed in jeopardy, and TCWS will be unable to
11 meet its financial obligations. In addition, capital will become more costly and
12 eventually unavailable without adequate relief.

13
14 **Q. PLEASE DESCRIBE THE COMPANY'S APPLICATION.**

15 **A.** In addition to the proposed rate schedule, the Application contains financial
16 statements consisting of a balance sheet, income statements, rate base and rate of return
17 calculation, a test year revenue calculation under current rates, a revenue calculation
18 under proposed rates, and a schedule of current and projected customers. Also included
19 are the most recent approval letters from DHEC and a sample customer bill form.

1 **Q. PLEASE SUMMARIZE THE PROPOSED CHANGES TO THE COMPANY'S**
2 **WATER RATE SCHEDULE?**

3 **A.** Exhibit A of the Application contains the Company's Schedule of Proposed
4 Water Rates and Charges. The Company has proposed to increase the water customers'
5 Residential Basic Facility Charge and the Commercial Basic Facility Charge from the
6 current charge of \$7.50 per month to \$8.03 per month and the Commodity Charge from
7 \$1.69 per 1,000 gallons to \$2.07 per 1,000 gallons.
8

9 **Q. WHAT IS THE IMPACT OF THE PROPOSED RATE CHANGES ON THE**
10 **TCWS CUSTOMERS?**

11 **A.** Attached hereto as Exhibit LS-1 is a table that summarizes the impact of the
12 proposed rate changes on TCWS's water customers. The proposed increase in water
13 charges for the BFC is \$0.53 or approximately 7.1%. The proposed increase for
14 commodity charges is \$0.38 per thousand gallons of water consumed or approximately
15 22.5%. The table shows that the proposed increase for all water customers is in the range
16 from \$2.44 to \$2.77 per month. This equates to an approximate 15% increase.
17

18 **Q. PLEASE SUMMARIZE THE PROPOSED CHANGES TO THE COMPANY'S**
19 **SEWER RATE SCHEDULE.**

20 **A.** Exhibit A of the Application also contains the Company's Schedule of Proposed
21 Sewer Rates and Charges. In this proceeding, the Company has proposed to increase the
22 full-service sewer charge for all sewer customers, the increases are as follows:
23

1	Type	Present	Proposed
2	Residential	\$30.09	\$37.33
3	Commercial	\$30.09	\$37.33

4

5 **Q. WHAT IS THE IMPACT OF THE PROPOSED RATE CHANGES ON THE**
6 **TCWS CUSTOMERS?**

7 **A.** The aforementioned **LS Exhibit 1** contains a table that indicates the impact of the
8 proposed rate changes on TCWS customers. This summarizes the impact of the proposed
9 sewer rate changes. The table shows that the proposed increase for all customers is
10 \$7.24. This equates to an approximate 24% increase.

11

12 **Q. MRS. SUNARDIO, DID YOU PREPARE THE FINANCIAL STATEMENTS**
13 **INCLUDED IN EXHIBIT B OF THE APPLICATION?**

14 **A.** Yes I did.

15

16 **Q. WHAT IS CONTAINED IN THE FINANCIAL STATEMENTS?**

17 **A.** The Financial Statements and related schedules submitted with the application
18 consist of a Balance Sheet, Income Statement, Rate Base and Rate of Return,
19 Consumption Analysis under Present rates and Consumption Analysis under Proposed
20 rates. The test year chosen is the year ended September 30, 2005 which was the most
21 recent twelve-month period available at the time of the Company's filing.

1 Schedule A is the Balance Sheet as of September 30, 2005. At the end of the test
2 year, TCWS had assets of approximately \$9.6 million. This includes approximately \$9.1
3 million of Net Utility Plant.
4

5 Schedule B is the Income Statement for the test year and is comprised of four
6 pages. Page 1 is the Income Statement for Combined Operations; page 2 is the Income
7 Statement for Water Operations; page 3 is the Income Statement for Sewer Operations,
8 and; page 4 is a list of brief explanations for the pro forma adjustments made to the
9 various income statement accounts. The Company has experienced an increase in per
10 book operating expenses of over \$230,000 since its last rate case. The increase in
11 expenses contributes to the Company's need for rate relief.
12

13 Schedule C is the Rate Base and Rate of Return Statement and is comprised of six
14 pages. Page 1 is the Rate Base and Rate of Return Statement for Combined Operations;
15 page 2 is the Rate Base and Rate of Return Statement for Water Operations, page 3 is the
16 Rate Base and Rate of Return Statement for Sewer Operations, page 4 is Plant by
17 Categories – Water, page 5 is Plant by Categories – Sewer, and page 6 is Explanation of
18 Adjustments to Rate Base and Rate of Return.
19

20 Schedule D is the Consumption Analysis under Present rates, and Schedule E is
21 the calculation of revenues under Proposed Rates.
22

1 **Q. PLEASE PROVIDE A BRIEF EXPLANATION OF THE PROFORMA**
2 **ADJUSTMENTS INCLUDED ON SCHEDULE B?**

3 **A.** Operator and Office salaries were annualized as of December 31, 2005 and
4 adjusted for a raise increase. Deferred charges to O&M expenses were recorded to
5 reflect repair and maintenance projects that were underway but not yet complete as of the
6 end of the test year. Pension & Other Benefits were annualized to match end of test year
7 salaries and wages. Regulatory Commission Expense was adjusted to reflect the cost of
8 this proceeding amortized over a three-year period. Depreciation Expense was adjusted
9 to reflect the annualized depreciation expense on end of test year plant as well as pro
10 forma additions to plant and the removal of wells per the Commission's Order in Docket
11 No. 1996-137-WS. Taxes other than income have been adjusted for changes in the
12 payroll taxes based on current tax rates and annualized salary figures as discussed above.
13 In addition, the Regulatory Commission Tax was adjusted to an estimated increase in the
14 assessment by the PSC. Gross Receipts Taxes were annualized on revenues under present
15 and proposed rates. Finally, an adjustment is made for a property tax accrual that was
16 double-counted. State and Federal Income taxes were calculated at the current rates of
17 5% and 35%, respectively. AFUDC is eliminated for ratemaking purposes. Interest
18 Expense was synchronized using the capital structure of the consolidated Utilities, Inc.
19 group of companies, consisting of a debt / equity ratio of 59.10% / 40.90% and an
20 embedded cost of debt of 6.42%.

21

22 **Q. PLEASE DISCUSS SCHEDULE C.**

23 **A.** Schedule C is the Rate Base and Rate of Return Statement. As of September 30,

1 2005, TCWS has a proposed rate base of approximately \$2.2 million. As indicated on
2 page 1 of Schedule C, TCWS earned a 2.00% return on rate base during the test year.
3 This is well below the Company's cost of capital.
4

5 **Q. WHAT PRO FORMA ADJUSTMENTS ARE REFLECTED ON SCHEDULE C?**

6 **A.** Working capital has previously been used in TCWS rate cases and is again used
7 in this proceeding. Working capital is calculated at 1/8 of test year's operating expenses.
8 A pro forma adjustment is made to working capital to match the pro forma operating
9 expenses. Another rate base adjustment indicated on Schedule C is to reflect capital
10 projects that were underway but not yet complete as of the end of the test year. These
11 Pro Forma Plant projects are needed to provide customers with safe and reliable sewer
12 service. Plant wells and their accumulated depreciation were removed from rate base per
13 the Commission's Order in Docket No. 1996-137-WS. Finally, vehicles were moved
14 between companies and rate base was adjusted accordingly.
15

16 **Q. WHAT RATEMAKING METHODOLOGY DOES THE COMPANY PROPOSE**
17 **THAT THE COMMISSION EMPLOY IN THIS CASE?**

18 **A.** The Company proposes that its rates be determined utilizing the rate of return on
19 rate base methodology.
20
21
22

1 **Q. IS RATE OF RETURN ON RATE BASE TREATMENT APPROPRIATE FOR**
2 **THE COMPANY?**

3 **A.** Absolutely. The Company has a large rate base and needs to earn a rate of return
4 that is sufficient to obtain the necessary equity and debt capital that a larger utility needs
5 for sound operation.

6 **Q. IS THE OPERATING MARGIN OR OPERATING RATIO APPROACH**
7 **UTILIZED BY ANY OF THE OTHER STATE REGULATORY BODIES WITH**
8 **JURISDICTION OVER OTHER SUBSIDIARIES OF UTILITIES, INC.?**

9 **A.** None of the Company's sister subsidiaries are regulated by a state utility
10 commission that employs the operating margin approach used by the Public Service
11 Commission of South Carolina. Only one state utility commission, the North Carolina
12 Utilities Commission, employs the operating ratio methodology. Further, the policy in
13 that state is that the operating ratio approach is employed only where it generates **more**
14 revenue than does the rate of return on rate base approach. Additionally, North Carolina
15 employs this method only for smaller companies that have little or no rate base, are
16 incapable of having a well-defined capital structure, have a cost of capital which cannot
17 be easily determined and which will benefit on the revenue side when the alternative is
18 employed.

19

20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

21 **A.** Yes, it does.

22

23

WATER

Test Year:		48501	5/8" Residential	Base Charge Gallon	\$ 7.50 \$ 1.69	5,574	\$	16.92	
		48502	5/8" Commercial Distribution	Base Charge Gallon	\$ 7.50 \$ 1.69	5,984	\$	17.61	
		48505	1" Commercial Distribution	Base Charge Gallon	\$ 7.50 \$ 1.69	5,358	\$	16.55	
		48506	2" Commercial Distribution	Base Charge Gallon	\$ 7.50 \$ 1.69	5,100	\$	16.12	
		48540	Hydrant Rental	Base Charge Gallon	\$ 8.33 \$ -	-	\$	8.33	
Proposed:		48501	5/8" Residential	Base Charge Gallon	\$ 8.03 \$ 2.07	5,574	\$	19.54	\$ 2.62 15.46%
		48502	5/8" Commercial Distribution	Base Charge Gallon	\$ 8.03 \$ 2.07	5,984	\$	20.38	\$ 2.77 15.73%
		48505	1" Commercial Distribution	Base Charge Gallon	\$ 8.03 \$ 2.07	5,358	\$	19.09	\$ 2.54 15.32%
		48506	2" Commercial Distribution	Base Charge Gallon	\$ 8.03 \$ 2.07	5,100	\$	18.56	\$ 2.44 15.13%
		48540	Hydrant Rental	Base Charge Gallon	\$ 8.33 \$ -	0	\$	8.33	

Proposed:

Sewer

Test Year:		Rate	Monthly Average Usage	Monthly Average Bill	\$ Incr.	% Incr.	Date of Last Rate Increase
	48521	5/8" Residential		\$ 30.09			3/16/1999
	48522	5/8" Coml Sewer		\$ 30.09			
	48523	1" Coml Sewer		\$ 30.09			
	48524	2" Coml Sewer		\$ 30.09			
Present:							
	29521	Residential		\$ 37.33	\$ 7.24	24.05%	
	29522	Commercial		\$ 37.33	\$ 7.24	24.06%	
	30021	5/8" Residential		\$ 37.33	\$ 7.24	24.06%	
	30023	2" Commercial		\$ 37.33	\$ 7.24	24.06%	

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DOCKET NO. 2006-97-WS

IN RE:

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rates and charges and modifications to
certain terms and conditions for the
provision of water and sewer service.

DIRECT TESTIMONY
OF
BRUCE T. HAAS

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Bruce T. Haas, and my business address is 110 Queen Parkway, West
Columbia, South Carolina 29169.

Q. WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am Regional Director of Operations for Tega Cay Water Service, Inc. for South
Carolina and for six other operating subsidiaries of Utilities, Inc., four of which are in South
Carolina and two of which are in Georgia.

**Q. HOW LONG HAVE YOU BEEN EMPLOYED IN THE WATER AND SEWER
UTILITY INDUSTRY?**

A. Approximately 28 years.

1 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?**

2 **A.** I first began my employment as a meter reader and maintenance worker in 1978
3 by Lake Holiday Utilities, Corp., which is also a subsidiary of the Company's parent,
4 Utilities, Inc. During the next several years, I was promoted to Operator and Operating
5 Manager positions for a number of Utilities, Inc. subsidiary systems, while earning
6 various water and wastewater licenses in Illinois and Ohio, including the highest levels of
7 water treatment and wastewater treatment licenses from the Illinois EPA. I eventually
8 became the Area Manager for the Peoria, Illinois region, overseeing the water and
9 wastewater facilities in this area. In 1989, I transferred to Charlotte, North Carolina
10 where I accepted the position of Area Manager for several areas for Carolina Water
11 Service of North Carolina, Inc., a sister subsidiary of the Company, a job I also
12 performed for the Company which involved operations of the River Hills and Tega Cay
13 Systems in York County, South Carolina. I was eventually promoted to Regional
14 Manager while in Charlotte. During this time I also obtained various water and
15 wastewater licenses in Water Treatment, Water Distribution, Wastewater Collection, and
16 Backflow/Cross-Connection certifications from the State of North Carolina and took
17 night courses towards a degree in Civil Engineering Technology. I also hold the highest
18 levels of water and wastewater certifications for Water Treatment, Water Distribution,
19 Wastewater Treatment and Wastewater Collection from the State of South Carolina. In
20 2002, I was promoted to my current position and given responsibility for the Company's
21 systems in South Carolina, along with two subsidiary companies located in Georgia.

1 However, the majority of my time is spent working on issues pertaining to the
2 Company's South Carolina systems.

3
4 **Q. WHAT ARE YOUR DUTIES WITH TEGA CAY WATER SERVICE?**

5 **A.** I am responsible for making sure our customers receive the best possible service.
6 As such, I am responsible for all operating personnel, facilities, maintenance and capital
7 projects. In addition, I am responsible for communications with state and federal
8 regulators, including state utility commissions and environmental authorities as well as
9 other operational issues.

10
11 **Q. WOULD YOU DESCRIBE YOUR EXPERIENCE IN WORKING WITH OR**
12 **TESTIFYING BEFORE STATE UTILITY COMMISSIONS REGARDING RATE**
13 **CASES?**

14 **A.** Yes. I have testified before the commissions in North Carolina and South
15 Carolina, along with working with staff of the Illinois Commerce Commission during my
16 tenure with the Company.

17
18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING,**
19 **MR. HAAS?**

20 **A.** The purpose of my testimony is to provide the Commission with a brief overview
21 of our South Carolina operations and our continued efforts to provide our customers with
22 the best possible water and sewer utility service and to support the portion of the

1 Company's application for modification of certain of the terms and conditions pertaining
2 to water service.

3
4 **Q. MR. HAAS, WOULD YOU BRIEFLY DESCRIBE THE COMPANY'S WATER**
5 **AND SEWER OPERATIONS HERE IN SOUTH CAROLINA?**

6 **A.** Yes. Tega Cay Water Service, Inc., which I will refer to as TCWS or the
7 Company, currently serves over 1800 water customers and over 1700 wastewater
8 customers located in York County. We deliver safe and reliable water service to our
9 customer's homes through the purchase and resale of bulk water. We also provide sewer
10 service through our collection facilities and (3) existing wastewater treatment plants.

11
12 **Q. WITHIN THE COMPANY, WHO IS RESPONSIBLE FOR ENSURING THAT**
13 **CUSTOMERS ARE RECEIVING THE BEST POSSIBLE SERVICE?**

14 **A.** I have the overall responsibility for ensuring that our customers receive the best
15 possible service. In order to discharge this responsibility, I make every effort to see that
16 the company hires and maintains a highly qualified and professional staff of individuals.
17 Together, we continue to make customer satisfaction the primary responsibility of each
18 and every TCWS employee.

1 **Q. WHAT ONGOING PROGRAMS DOES THE COMPANY HAVE IN PLACE TO**
2 **HELP ENSURE THAT CUSTOMERS RECEIVE QUALITY UTILITY**
3 **SERVICE?**

4 **A.** First and foremost, we make certain that our operations personnel are duly
5 certified by environmental regulatory authorities. We provide training resources in order
6 to increase their knowledge and education in the water and wastewater fields. Many of
7 our licensed operators hold the highest levels of water and wastewater certifications from
8 the State of South Carolina and we also employ two (2) registered Professional
9 Engineers. We also hold periodic staff meetings to specifically address service concerns,
10 as well as to increase employee sensitivity to customer satisfaction. Topics covered
11 include service problems we have encountered, steps taken to solve these problems, new
12 regulations and cost control measures. These regular meetings also serve as an
13 opportunity to reinforce our customer service philosophy, as well as to keep each of us
14 focused on what is important – our customers. Continuing education programs are
15 provided for all employees, including classes routinely conducted by Company staff as
16 well as outside consultants. Our most valuable resource is our personnel. By keeping up
17 to date with new methods and changing regulations, we enable them to provide better
18 service and hold down costs.

19 To ensure that our customers are provided the best possible service we also
20 employ a capital improvements program, as well as ongoing operational programs such
21 as routine testing and periodic water main flushing to improve water quality, the cleaning
22 of between 10%-20% of sewer collection mains each year to minimize the potential for

1 back-ups, video inspections of portions of the sewer collection mains, upgrades to each of
2 our sewer pump stations including the installation of new, remote telemetry alarm units
3 that continuously monitor levels and pump run times at pump stations, and a 24-hour-a-
4 day, seven-day-a-week on-call emergency service. These programs also ensure that
5 company-wide facilities are properly maintained and safety standards met.

6 Communication with our customers and community leaders regarding issues
7 which may have an impact on the quality or cost of service is also an important aspect of
8 our business. As increased environmental regulation continues to place upward pressure
9 on the cost of providing service, it becomes more important for us to inform customers of
10 the measures we must take to ensure that their drinking water is safe and that their
11 waterways are protected. Included in these customer communication efforts would be
12 attendance at Property Owners Association (POA) meetings when we are notified,
13 customer letters, bill inserts and back-of-the-bill messages, the submission of information
14 to local media outlets, annual Consumer Confidence Reports detailing the Safe Drinking
15 Water Act compliance, and new customer welcome packets introducing our company and
16 providing contact information for problems or concerns. We also utilize the local cable
17 TV channel to place information or provide updates regarding system upgrades or
18 repairs. We also continue to work with entities such as the local Tega Cay Volunteer Fire
19 Department (TC-VFD) regarding maintenance work conducted on our elevated storage
20 tank, along with maintenance and flow data for our fire hydrants within the water system
21 in order to document and help maintain their current ISO Fire Ratings. Lower ratings
22 also benefit customers by helping reduce insurance rates charged to customers. We have

1 also painted and color-coded all our hydrants to match the color of our elevated tank to
2 further identify ownership of facilities within Tega Cay and to prevent confusion with
3 other facilities that may be operated separately by the City. Further, all hydrants have
4 been color-coded on the nozzles to indicate flow-ratings in response to our on-going
5 communications with the TC-VFD and maintenance records.

6 In addition to these efforts, the Company has also implemented an automatic
7 message delivery system whereby we are able to provide specific information to
8 customers in a particular geographic area or subdivision, advising them of upgrades or
9 repairs being done to their system. We are also able to notify customers in advance of
10 scheduled repairs, along with boil water advisories following water line repairs, periodic
11 flushing of the water system, or other updates regarding repairs being made. Since
12 implementing this program in March of this year, we have placed over 2,800 such calls to
13 our customers within Tega Cay.

14
15 **Q. HAS INCREASED FEDERAL REGULATION OF THE WATER AND**
16 **WASTEWATER UTILITIES CONTINUED TO HAVE AN IMPACT ON THE**
17 **COMPANY?**

18 **A.** Absolutely, yes. The Safe Drinking Water Act, or SDWA and the Clean Water
19 Act, or CWA have changed the way in which water and sewer utilities conduct their
20 business. DHEC implements statutes and regulations adopted by the State of South
21 Carolina under these federal enactments. Additional costs have been placed upon water
22 and wastewater utilities to comply with more exacting limits in both areas. While we

1 have already complied with many of the requirements contained in the reauthorization of
2 the SDWA, new requirements continue to be promulgated. Likewise, the requirements of
3 the CWA continue to evolve.
4

5 **Q. WHAT IMPACT DOES THIS HAVE ON THE COMPANY'S CUSTOMERS?**

6 **A.** For one thing, the cost of providing service obviously increases; but, in turn our
7 customers receive the benefit of greater protection of their waterways and safer drinking
8 water that is free of harmful contaminants. Our customers also benefit from our
9 commitment to provide them with safe and reliable utility service which is reinforced by
10 compliance. Understandably, customers may be unaware of our efforts to meet
11 regulatory requirements since they do not necessarily see a perceptible change in the
12 quality of service and therefore, may also be largely unaware of the hidden benefits of
13 compliance. Without the benefits of compliance, residential development simply cannot
14 be sustained – much less begun. And, of course, these benefits accrue to the overall well-
15 being and value of the communities we serve.
16

17 **Q. MR. HAAS, YOU ALSO STATED THAT A PURPOSE OF YOUR TESTIMONY**
18 **IS TO SUPPORT THE COMPANY'S REQUEST FOR MODIFICATION OF**
19 **CERTAIN TERMS AND CONDITIONS PERTAINING TO THE PROVISION OF**
20 **THE COMPANY'S SERVICES; WOULD YOU PLEASE DESCRIBE THESE**
21 **MODIFICATIONS?**

1 A. Certainly. The first modification is to the rate schedule provisions pertaining to
2 service provided to rental units and is set out at page two of the water schedule and page
3 five of the sewer schedule. Since the Company's last rate case in 1996, the legislature
4 has enacted a statute restricting the ability of any utility – whether governmental or
5 investor owned – to require a landlord to be financially responsible for utility service
6 provided to a tenant. This effectively invalidated the Commission's long-standing
7 regulation which permitted this practice. A subsequent amendment to this legislative
8 enactment permits a utility to require a landlord to be responsible for service provided to
9 a tenant in a multi-unit building with more than three units which are not separately
10 metered or connected. This proposed modification is intended to bring the Company's
11 rate schedule into line with the current law.

12 The second proposed modification is to the water rate schedule and consists of a
13 new section six on page three. Regulations promulgated by DHEC under the State Safe
14 Drinking Water Act require the elimination of cross connections to public water systems
15 which have the potential for contaminating safe drinking water. Typically, a cross
16 connection in our customer base will consist of a separate water irrigation line which may
17 or may not be metered. The DHEC regulations prohibit any person from installing,
18 permitting to be installed or maintaining a cross connection unless there is an approved
19 backflow prevention device installed between the public water system and the potential
20 source of contamination. DHEC regulations further require that certain backflow
21 prevention devices be inspected annually by a DHEC certified tester. The modification to
22 our rate schedule provides notice to customers that any cross connections must be

1 addressed by an approved backflow prevention device and that the customer is
2 responsible for the annual inspection. In the event that a customer does not comply, this
3 provision would permit the Company to arrange for an inspection and bill the customer
4 the costs of same without markup. The Company has an obligation under the regulation
5 to ensure that no unprotected cross connections are in place and customers have an
6 obligation under the regulation not to install or maintain unprotected cross connections.
7 This provision insures that unaffected or compliant customers do not bear the cost of
8 enforcing compliance with this program by other customers.

9 The third proposed change is to the sewer schedule on page 7 and relates to toxic
10 and pretreatment effluent guidelines. The Clean Water Act requires that industries
11 discharging toxic pollutants meet effluent limits that employ the best available
12 technology economically achievable. This provision has been added to ensure that
13 customers of TCWS do not discharge toxic pollutants into the wastewater system and
14 that, therefore, TCWS complies with all applicable CWA requirements.

15
16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A.** Yes.